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Docket M-645

ALARM SYSTEM FOR A GARMENT AND METHOD OF MAKING  
Cross-Reference to Related Application

Reference is hereby made to U.S. patent application Serial No.  
10/216,272 filed August 9, 2002.

Field of the Invention

This invention relates to the field of responsive systems  
including personal alarms.

Background of the Invention

The following U.S. patents are made of record: 2,717,437;  
3,009,235; and 5,583,489.

Summary of the Invention

This invention relates to a user-friendly responsive system  
including a personal alarm system applied to a garment and to  
components thereof.

According to a specific embodiment of the invention, a sheet such as a label or a patch is secured to a garment so as to provide a chamber for holding a personal alarm device or other desired sensible device. The personal alarm is a security device which can be activated by the user in the event of danger or other need. The personal alarm can give off a shrill sound when activated. There is an opening into the chamber so that the device can be inserted into or removed from the chamber. The opening has a closable and releasably fastener or fasteners to enable the device to be inserted into and removed from the chamber and yet held securely in the chamber when the fastener is closed. If desired, the device can be sealed in an envelope which is liquid impervious to prevent the device itself from being damaged if the device is left in the chamber when the garment is washed. The fastener or fasteners used to close off the chamber can be of different types, such as a hook and loop type fastener, a zipper, buttons, or the like to securely releasably hold the device in the chamber. The sheet can be a woven fabric label with various indicia, or the sheet can be constructed of different materials, and the sheet can be in different shapes such as rectangular, round, oval and so on.

Brief Description of the Diagrammatic Drawings

FIGURE 1 is a perspective front view of a garment to which an electronically responsive or activatable device is releasably secured;

FIGURE 2 is an enlarged view of a fragmentary portion of the garment, of a broken-away portion of the front of the sheet and of the envelope which contains such a device.

FIGURE 3 is a sectional view taken generally along line 3—3 of FIGURE 2;

FIGURE 4 is a sectional view taken generally along lines 4—4 of FIGURE 2; and

FIGURE 5 is a rear elevational view of the sheet of which the fastener has been secured showing the side of the sheet opposite of the side shown in FIGURES 1 and 2.

#### Detailed Description of the Preferred Embodiments

With reference to FIGURES 1 and 2, there is shown a garment generally indicated at 10 to which a holder 11 for removably receiving an alarm or an electronically-sensible or responsive device 12. In the case where the device 12 is an audible alarm as illustrated, a button 14 is depressed by the user to activate the device 12 and the alarm continues to sound until the button 14 is depressed again.

As shown in FIG. 5, the holder 11 includes a sheet 11' which is preferably made of fabric. A two-part fastener generally indicated at 15 is shown to comprise a strip 16 of plastics loops 17 and a strip 18 of plastics hooks 19. Fasteners of this type are shown for example in U.S. patents 2,717,437 and 3,009,235 and are sold under the trademark VELCRO®. One strip, for example, the strip 16 is secured preferably by sewing 21 along the upper peripheral portion 20 of the sheet. The remainder of the periphery of the sheet 11' is preferably sewn to the garment 10 as indicated at 22. The sheet 11' and the garment 10 are thus secured to provide a chamber 23 for receiving the device 12.

It is preferred to enclose the device 12 in a plastics, liquid impervious envelope 24 to protect the device 12 from becoming wet, such as when the device is not removed before washing. The envelope 24 can be a tube of thin polyethylene which can be heat sealed at both ends 25 and 26. The envelope 24 does not appreciably diminish the sound emitted by the alarm 12 when activated. If desired, the envelope 24 can be omitted.

When it is desired to insert the device 12 together with its envelope 24 into the chamber 23, the illustrated fastener 15 is opened, the device 12 and its optional envelope 24 inserted into the chamber 23, and the fastener 15 is pressed closed. The activation button 14 is preferably positioned to face outwardly, that is, outwardly away from the garment 10. The button 14 is preferably large enough to be readily hand-activated. As illustrated in FIG. 1, the alarm 12 is located centrally of the front of the garment 10 which is illustrated to be a shirt, although other positions for locating the sheet 11' and the alarm 12 can be used. The sheet 11' can have woven indicia or printed indicia 26'.

Instead of releasably enclosing an audible alarm in the chamber 23, an RFID device or an electronic article surveillance device can be enclosed in the chamber 23.

The method of making and using the invention is to provide a sheet 11' of material such as a fabric label which may be woven with particular indicia 26, and then securing or forming part 16 of a two-part fastener 15 to the sheet 11' along part or all of the outer periphery of the sheet. If the sheet 11' is rectangular as shown in the drawings, the fastener 15 can extend along one side or along

part of one side of the sheet 11'. The other part 18 of the fastener 15 can then be sewn onto or otherwise secured to the garment 10. The sheet 11' can thereafter be sewn onto the garment 10 as shown at 22, with the strips 16 and 18 aligned in face-to-face relationship. The holder 11 can be provided by the garment manufacturer, and the device 12 can be inserted into the chamber 23 by the garment manufacturer or the device 12 can be inserted subsequently by the retail store or by the user. To insert the device 12, the strips 16 and 18 are separated sufficiently to allow insertion of the device 12, and then the strips 16 and 18 are pressed together to secure the device 12 in the chamber 23. The device 12 can be removed and reinserted, if desired. If the device 12 is an alarm, the button 14 can operate a switch preferably of the push-on, push again-off type. The alarm can be a battery operated, switch activated buzzer or the like. If desired, other fasteners such as zippers, button and buttonhole, etc. can be used.

Other embodiments and modifications of the invention will suggest themselves to those skilled in the art, and all such of these as come within the spirit of this invention are included within its scope as best defined by the appended claims.